



UNITED STATES PATENT AND TRADEMARK OFFICE

2

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/832,467	04/11/2001	Michael McLoughlin	SRT-024	4529

22832 7590 05/19/2005

KIRKPATRICK & LOCKHART NICHOLSON GRAHAM LLP
(FORMERLY KIRKPATRICK & LOCKHART LLP)
75 STATE STREET
BOSTON, MA 02109-1808

EXAMINER

MCCARTHY, CHRISTOPHER S

ART UNIT	PAPER NUMBER
----------	--------------

2113

DATE MAILED: 05/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/832,467

Applicant(s)

MCLOUGHLIN ET AL.

Examiner

Christopher S. McCarthy

Art Unit

2113

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-12 is/are allowed.
- 6) ☒ Claim(s) 13,16,18,19 and 22 is/are rejected.
- 7) ☒ Claim(s) 14,15,17 and 20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 April 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-12, 21 are allowed.
2. Claims 13, 16, 19, 22 are rejected under 35 U.S.C. 102(e) as being anticipated by Petivan et al. U.S. Patent 6,141,769.
3. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Petivan.
4. Claims 14,15,17,20 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Art Unit: 2113

Claims 13, 16, 19, 22 are rejected under 35 U.S.C. 102(e) as being anticipated by Petivan et al. U.S. Patent 6,141,769.

As per claim 13, Petivan teaches a method for storing data in a fault-tolerant server, the method comprising the steps of: (a) establishing communication between a first CPU, a communications link, a first I/O subsystem and a second I/O subsystem (column 3, lines 26-67); (b) establishing communication between a second CPU, the communication link, the first I/O subsystem and the second I/O subsystem (column 3, lines 26-67); (c) at each of the first and second I/O subsystems comparing information streams transmitted by the first and the second CPUs over the communications link (column 3, lines 65-67); (d) if the information streams are determined to be different by either the first I/O subsystem, or the second I/O subsystem issuing a stop command (column 4, lines 25-29; column 5, lines 3-21); (e) otherwise, storing data from the information stream on both a first mass storage device local to the first I/O subsystem and a second mass storage device local to the second I/O subsystem (column 5, lines 12-21).

As per claim 16, Petivan teaches the method of claim 13 further comprising the step of allowing either CPU to access both the first and the second mass storage devices (column 37, lines 27-53).

As per claim 19, Petivan teaches the method of claim 13 wherein the first I/O subsystem and the second I/O subsystem are connected via a switching fabric (column 3, lines 18-20).

As per claim 22, Petivan teaches the method of claim 13 further comprising the step of executing instructions on the second CPU in lockstep with the first CPU (column 3, lines 62-67).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Petivan.

As per claim 18, Petivan does not specifically disclose the first CPU and the second CPU to further comprise a 1U rack-mount motherboard and the step of communicating therein. However, rack-mounting equipment is notoriously well known in the art. Examiner takes Official Notice for a 1U rack-mount form factor circuitry, such circuitry comprising a motherboard. A person of ordinary skill in the art at the time of the invention would have been motivated to use a 1U rack-mount form factor because he would not want to simply put the equipment on a shelf, it provides a more manageable footprint, it looks professional and industrial, and because it is a matter of design.

Allowable Subject Matter

7. Claims 1-12, 21 are allowed.

8. Claims 14,15,17,20 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The following is an examiner's statement of reasons for allowance: When read as a whole, claims 1 and 21 are allowable with respect to the following reason:

As per claim 1, the primary reason for allowance is the combination of the limitation of wherein the first I/O subsystem is configured to selectively access the first local mass storage device based upon its comparison of the first and second information streams; and the particular communication structure language of the claim.

As per claim 21, the primary reason for allowance is the combination of the limitations of a first Input/output (I/O) subsystem means, in communication with the first CPU and the first local mass storage device, configured to compare the first information stream and the second information stream; and a means for directly accessing by the first CPU, the second local mass storage device in the event of a failure of the first local mass storage device.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: See attached PYO-892.


Art Unit: 2113

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher S. McCarthy whose telephone number is (571)272-3651. The examiner can normally be reached on M-F, 9 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoliel can be reached on (571)272-3645. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

csm
May 12, 2005


ROBERT BEAUSOLIEL
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER